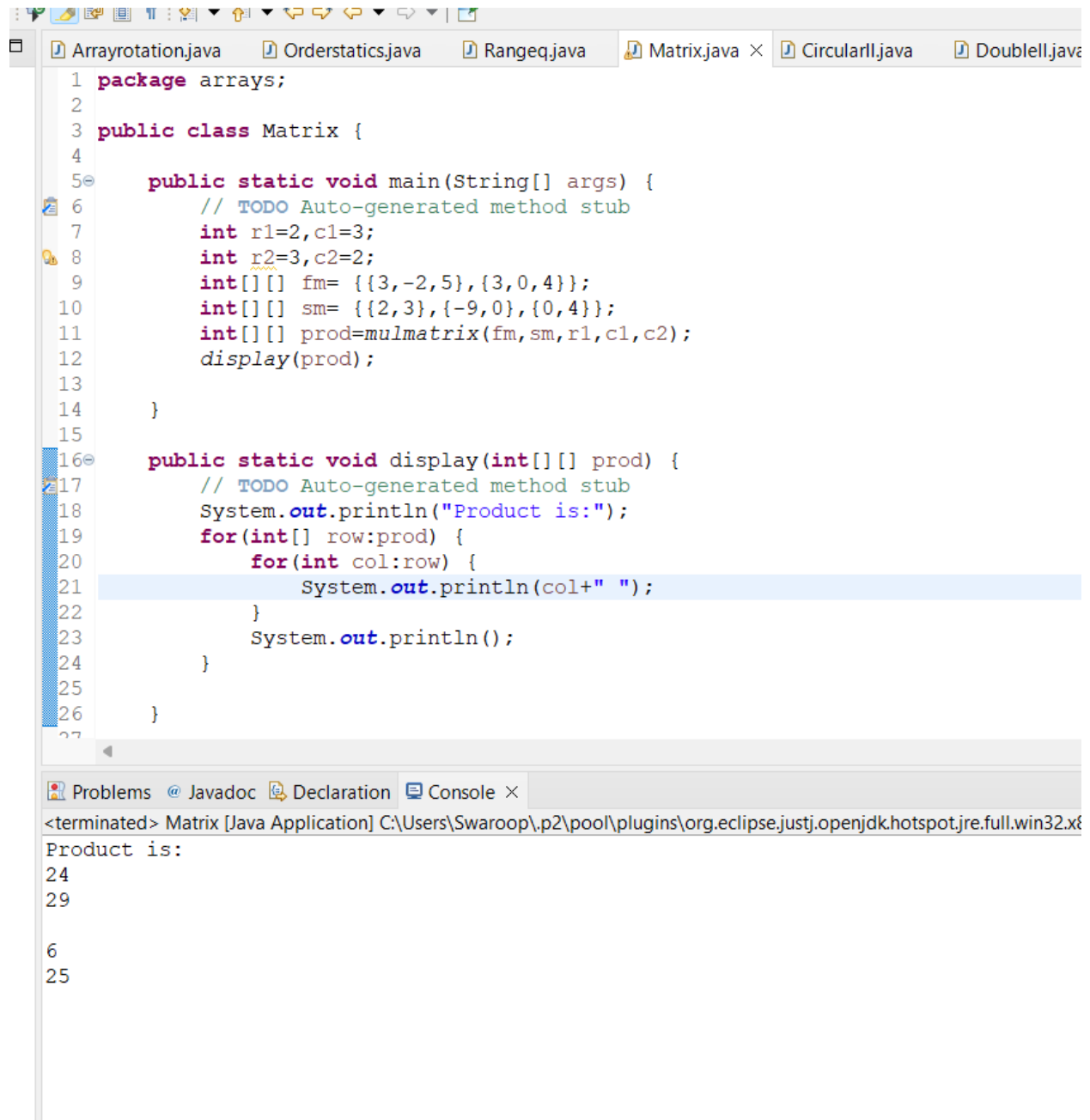**Problem Statement-4**

```java
package arrays;
public class Matrix {
    public static void main(String[] args) {
        // TODO Auto-generated method stub
        int r1=2,c1=3;
        int r2=3,c2=2;
        int[][] fm= {{3,-2,5},{3,0,4}};
        int[][] sm= {{2,3},{-9,0},{0,4}};
        int[][] prod=mulmatrix(fm,sm,r1,c1,c2);
        display(prod);

    }
    public static void display(int[][] prod) {
        // TODO Auto-generated method stub
        System.out.println("Product is:");
        for(int[] row:prod) {
            for(int col:row) {
                System.out.println(col+" ");
            }
            System.out.println();
        }


    }
    public static int[][] mulmatrix(int[][] fm, int[][] sm, int r1, int c1,
int c2) {
        // TODO Auto-generated method stub
        int [][] prod= new int[r1][c2];
        for(int i=0;i<r1;i++) {
            for(int j=0;j<c2;j++) {
                for(int k=0;k<c1;k++) {
                    prod[i][j]+=fm[i][k]*sm[k][j];
                }
            }
        }
        return prod;
    }
}
```

```java
1 package arrays;
2
3 public class Matrix {
4
5⊖    public static void main(String[] args) {
6        // TODO Auto-generated method stub
7        int r1=2,c1=3;
8        int r2=3,c2=2;
9        int[][] fm= {{3,-2,5},{3,0,4}};
10        int[][] sm= {{2,3},{-9,0},{0,4}};
11        int[][] prod=mulmatrix(fm,sm,r1,c1,c2);
12        display(prod);
13
14    }
15
16⊖    public static void display(int[][] prod) {
17        // TODO Auto-generated method stub
18        System.out.println("Product is:");
19        for(int[] row:prod) {
20            for(int col:row) {
21                System.out.println(col+" ");
22            }
23            System.out.println();
24        }
25
26    }
27
```

```
Product is:
24
29

6
25
```